

ACTUARIAL HODGEPODGE



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PERAC | Fall 2014

Post 4/1/12 Retirements

- Member in 1990's for approximately 8 years
 - Withdrew funds
- Re-established membership in May, 2012
- Purchased prior service
- Retired July 2014

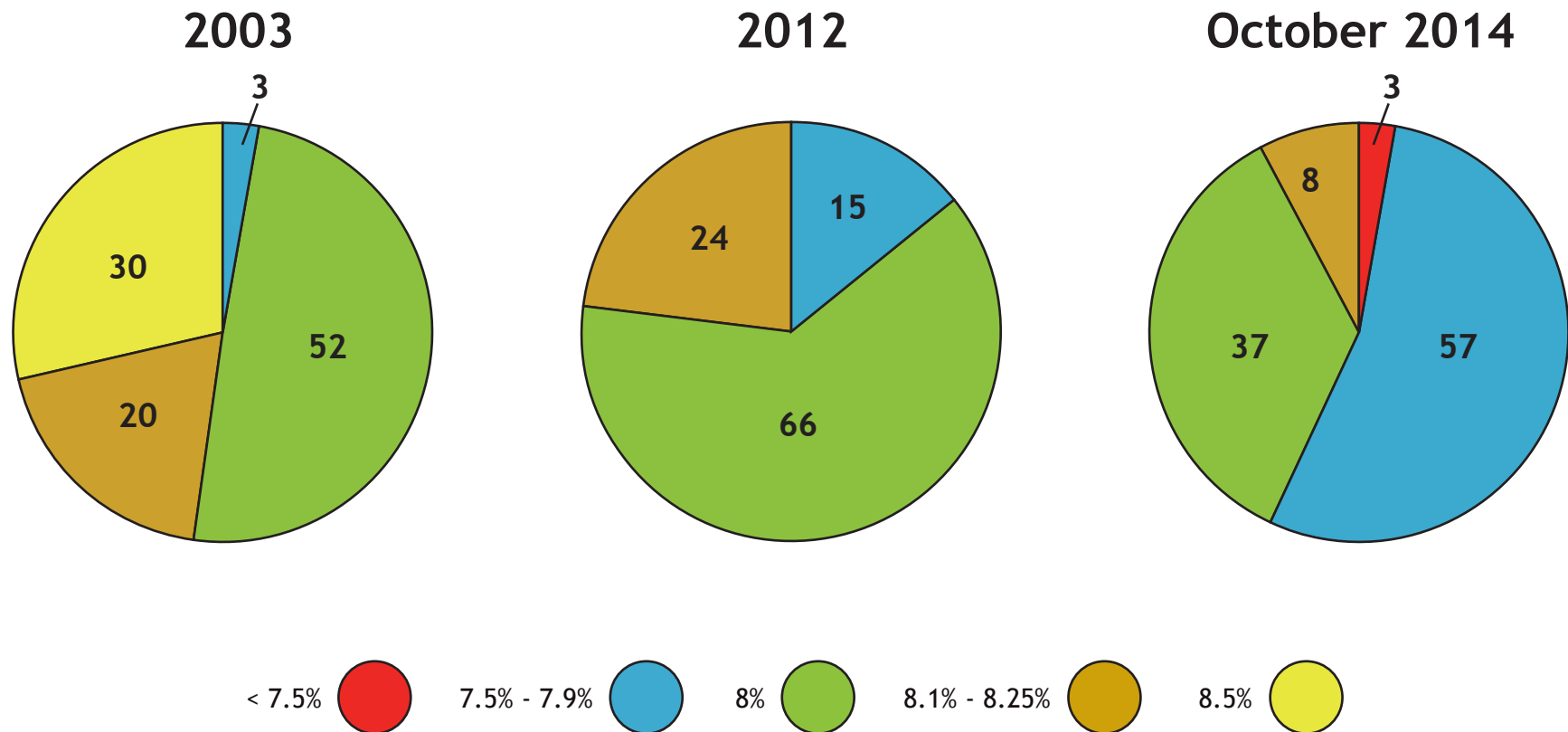
Mortality

- Began using RP-2000 in 2001 valuations
- 2010 Actuarial Standard of Practice
 - mortality improvement considered for valuations after 7/1/11
- 2011 valuations - RP-2000 projected 10 years with Scale AA
- Extended improvement scale in our 2012, 2013 and 2014 valuations
 - 2014 valuations- actives projected 22 years, retirees 17 years

Mortality *(continued)*

- New mortality table to be published in 2014
 - RP-2014
 - Limited experience relating to public plans
- Assumption in 2015???

Investment Return Assumptions



2008 Investment Loss

- Unprecedented for pension funding
- Now fully recognized
 - Pain in each valuation 2009 to 2014 for most systems
- 2009 - take 10 years to recover
 - Assets may be back to 2008 levels
 - But actuarial liability has increased each year

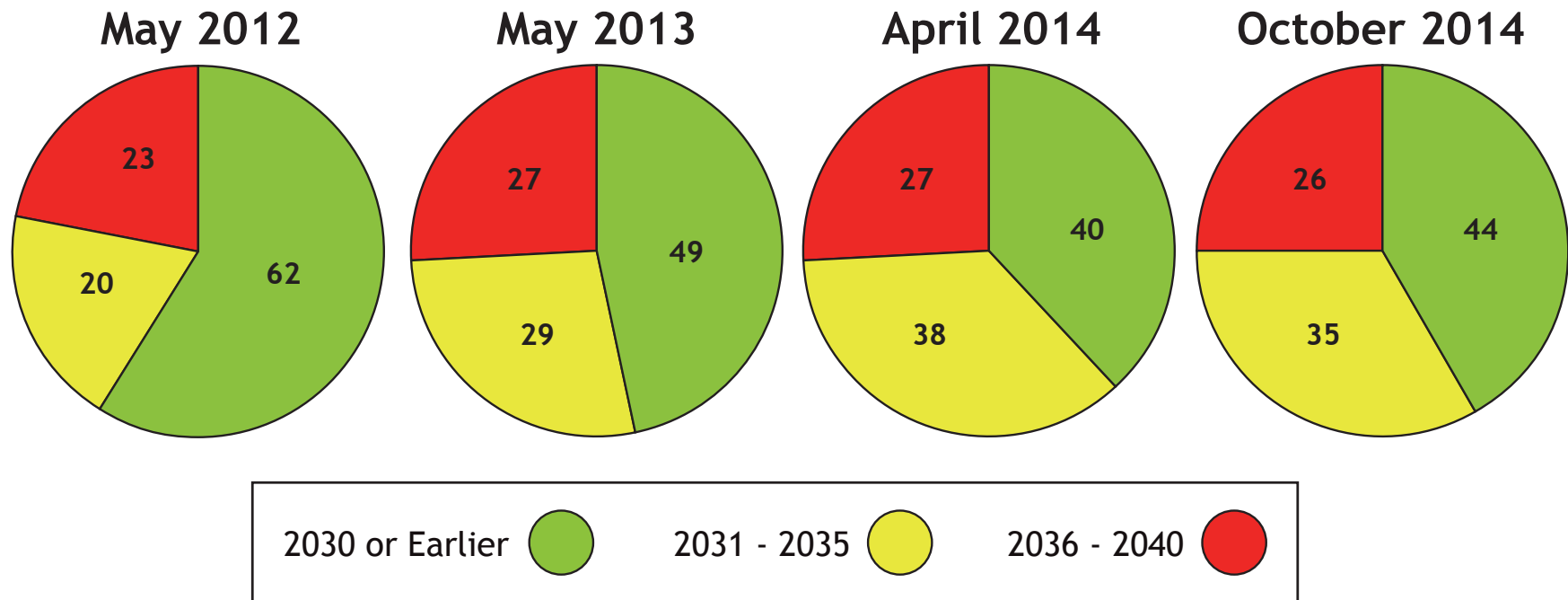
Funding Schedule Strategies

- PERAC local valuation process
- View 2-3 year schedule as 5 years
- 2012 valuation - schedule adopted effective FY13
 - FY13 same as prior schedule
- 2014 valuation - FY15 same as 2012 schedule
 - FY16 and FY17 - attempt to be comparable to 2012 schedule

Funding Schedule Strategies *(continued)*

- Amortize unfunded liability by FY35
- Provide flexibility in case of another downturn

Funding Schedules Adopted



Increase in **Total** Appropriation

- Ramp up/ phase-in
- 55 use this approach
 - 34 for entire length of schedule
 - 21 use phase-in schedule

Funding Schedule Alternatives

- Alternative 1- same amortization basis as current schedule
 - If decrease, we don't show
 - Instead would decrease number of years
- Alternative 2- extend years so amounts are comparable to current schedule
 - If not necessary to extend, adjust years and/or increasing basis
- Alternative 3- total appropriation increases x% per year
 - Percentage varies from 4.5% to 10%

Actuarial Funding Policies and Practices for Public Pension Plans

- October, 2014 white paper guidance*
 - Cost Method
 - Asset Smoothing Method
 - Amortization Policy
 - Actuarial Assumptions (outside scope of project)

* Conference of Consulting Actuaries Public Plans Community

Actuarial Funding Policies and Practices for Public Pension Plans *(continued)*

- Level Cost Allocation Model (LCAM) practices
- Acceptable
- Acceptable with conditions
- Non-recommended
- Unacceptable

Actuarial Funding Policies and Practices for Public Pension Plans *(continued)*

- ✓ Cost Method- Entry Age level percent of pay
- ✓ Asset Smoothing- 5 year smoothing, corridor usually 90%/110%
 - Market value acceptable
- Amortization Policy - not an automatic check for many systems

Actuarial Funding Policies and Practices for Public Pension Plans *(continued)*

- LCAM Amortization Policy - level percent of pay layered approach
 - Amendments 10-15 years
 - Experience gains/loss 15-20 years
 - Assumption changes 15-25 years
 - ERIs 5 years

Actuarial Funding Policies and Practices for Public Pension Plans *(continued)*

- Current “average” result - 15-20 years??
 - Approximates FY35 goal
- Non recommended fixed amortization 26-30 years
- Unacceptable fixed amortization over 30 years
- But limiting negative amortization important!
 - Level and duration

COLA Base Increases

- Rough rule of thumb
 - .5% increase in actuarial liability (AL) and total normal cost per \$1,000 of increase
- Increase base from \$12,000 to \$14,000
 - 1.0% increase in AL

COLA Base Increases *(continued)*

- But, UAL % increases by more than 1% (assets the same)
- Likewise employer normal cost (NC)
- 1% increase in AL and NC- generally 2% to 4% increase in appropriation
(Assumes same schedule)

COLA Base Increases *(continued)*

How to Pay?

- Recommended - increase appropriation to reflect cost increase
 - Don't bury your head in the sand
- Most systems have instead extended the schedule by a year or two
 - Not recommended- cost shifted to end of schedule



Option C Factors

Life Insurance Analogy - the Logic

- Electing Option C is like buying life insurance
- Insurance costs more the older you are
- Reduction from Option A to Option C can be thought of as the “premium”
- Higher Premium → Lower Option C benefit → Lower Option C factor

Option C Factors *(continued)*

The Mathematics Behind the Factors

- Simplifying Assumptions
 - 1) Everyone dies at age 80
 - 2) No Interest
 - 3) Option A benefit = \$12,000
 - 4) Beneficiary receives same benefit as member upon member's death
- All 3 options are actuarially equivalent
 - Have same Present Value

Option C Factors *(continued)*

The Mathematics Behind the Factors			
Member Age/ Beneficiary Age	PVB	C Benefit	C Factor
79/78	\$12,000	\$6,000	.5000
78/77	\$24,000	\$8,000	.6667
77/76	\$36,000	\$9,000	.7500
76/75	\$48,000	\$9,600	.8000

GASB 67 and GASB 68

- Accounting standards
- Funding not impacted
- GASB 67 - plan
- GASB 68 - employer

GASB 67 and GASB 68 *(continued)*

Dates and Timing

- **Reporting Date** - fiscal year end (plan or employer)
- **Measurement Date**
 - Plan: fiscal year end
 - Employer: no earlier than end of prior fiscal year
- **Valuation Date**
 - Plan: no more than 24 months earlier than fiscal year end
 - Employer: no more than 30 months earlier than fiscal year end

GASB 67 and GASB 68 *(continued)*

Local System Effective Dates

Plan Year	12/31
Fiscal Year	6/30
First Plan Year Effective	12/31/14
First Employer Year Effective	6/30/15

GASB 67 and GASB 68 *(continued)*

Employer Dates

Reporting Date	6/30/15
Measurement Date <ul style="list-style-type: none">• Allowable Period• Most Practical	6/30/14 - 6/30/15 12/31/14
Valuation Date <ul style="list-style-type: none">• Allowable Period• Most Practical	12/31/12 - 6/30/15 1/1/13 or 1/1/14

GASB 67 and GASB 68 *(continued)*

Plan Dates

Reporting Date	12/31/14
Measurement Date	12/31/14
Valuation Date <ul style="list-style-type: none">• Allowable Period• Most Practical	12/31/12 - 12/31/14 1/1/13 or 1/1/14

GASB 45

- Other post-employment benefits (OPEB)
 - Primarily retiree medical
- Chapter 68 of Acts of 2011
 - PERAC charged with summarizing valuation results
 - Letters requesting valuations- 2011, 2012
 - Please send valuations when completed!